

What is claimed is:

1 1. A method of evaporating thin film used in organic
2 electro-luminescent display, comprising steps of:
3 providing a display substrate;
4 providing a mask having a plurality of openings and placed
5 below the display substrate;
6 providing a plane evaporation source placed below the mask,
7 wherein the plane evaporation source has a plurality of
8 evaporating material cells which are respectively aligned to
9 the openings of the mask; and
10 evaporating the evaporating material cells to deposit a
11 plurality of thin films on predetermined regions of the
12 display substrate.

1 2. The method according to claim 1, wherein the
2 evaporating material cell is of organic electro-luminescent
3 materials.

1 3. The method according to claim 1, wherein the formation
2 of the plane evaporation source comprises steps of:
3 providing a metal plate;
4 providing at least one kind of evaporation source placed
5 below the metal plate; and
6 evaporating the evaporation source to form the
7 evaporating material cells on the metal plate.

1 4. The method according to claim 3, wherein the formation
2 of the plane evaporation source further comprises a step of
3 providing a mask which has a plurality of openings and is

4 disposed between the metal plate and the evaporation source.

1 5. The method according to claim 3, wherein a plurality
2 of types of evaporation sources are provided below the metal
3 plate.

1 6. The method according to claim 3, wherein the metal plate
2 is rotated during evaporation.

1 7. The method according to claim 3, wherein the back side
2 of the metal plate comprises a plurality of supporting ribs.

1 8. A method of evaporating thin film used in organic
2 electro-luminescent display, comprising steps of:

3 providing a display substrate;

4 providing a mask having a plurality of openings and placed
5 below the display substrate;

6 providing a first plane evaporation source placed below
7 the mask, wherein the first plane evaporation source has a
8 metal net and a plurality of first evaporating material cells
9 which are respectively aligned to the openings of the mask;

10 providing a second plane evaporation source placed below
11 the first plane evaporation source, wherein the second plane
12 evaporation source has a metal plate and a plurality of second
13 evaporating material cells which are respectively aligned to
14 the openings of the mask; and

15 evaporating the first evaporating material cells and the
16 second evaporating material cells to deposit a plurality of
17 thin films on predetermined regions of the display substrate.

1 9. The method according to claim 8, wherein the first
2 evaporating material cell and the second evaporating material
3 cell are of organic electro-luminescent materials.

1 10. The method according to claim 8, wherein the formation
2 of the first plane evaporation source comprises steps of:
3 providing the metal net;
4 providing a first mask which has a plurality of first
5 openings and is placed below the metal net;
6 providing at least one kind of first evaporation source
7 which is placed below the first mask; and
8 evaporating the first evaporation source to form the first
9 evaporating material cells on the metal net.

1 11. The method according to claim 10, wherein the metal
2 net is rotated during evaporation.

1 12. The method according to claim 10, wherein the back side
2 of the metal net comprises a plurality of supporting ribs.

1 13. The method according to claim 8, wherein the formation
2 of the second plane evaporation source comprises steps of:
3 providing the metal plate;
4 providing a second mask which has a plurality of first
5 openings and is placed below the metal plate;
6 providing at least one kind of second evaporation source
7 which is placed below the second mask; and
8 evaporating the second evaporation source to form the
9 second evaporating material cells on the metal plate.

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1 14. The method according to claim 13, wherein the metal
2 plate is rotated during evaporation.

1 15. The method according to claim 13, wherein the back side
2 of the metal plate comprises a plurality of supporting ribs.